

WHAT IS CLAIMED IS:

1 1. A progressive flex headplate assembly for use in
2 the construction of a saddle tree capable of fitting
3 horses of different widths, said progressive flex
4 headplate comprising:

5 an elongated spring element having a first end
6 portion, a second end portion, and a center portion
7 located therebetween, said elongated spring element
8 having a larger thickness dimension at said center
9 portion than at said first and second end portions;
10 and

11 a curved segment constructed of a rigid material,
12 said curved segment secured to said center portion of
13 said elongated spring element;

14 wherein said first and said second end portions of
15 said elongated spring element exhibit both progressive
16 flexibility and resilience in response to flexure of
17 said first and second end portions permitting the
18 headplate assembly to flex to fit more than one size
19 horse.

1 2. A progressive flex headplate assembly according
2 to Claim 1, wherein said elongated spring element
3 comprises:

4 a top segment, a middle segment, and a bottom
5 segment constructed of a flexible, resilient material,
6 wherein said top segment has a first length dimension,
7 said middle segment has a intermediate length
8 dimension longer than said first length dimension of
9 said top segment, and said bottom segment has a length
10 dimension greater than said intermediate length
11 dimension of said middle segment;

12 wherein said segments are consecutively arranged to
13 overlay each other from said top segment to said
14 bottom segment.

1 3. A progressive flex headplate assembly according
2 to Claim 2, wherein each of said top, middle, and
3 bottom segments are constructed of a nylon material.

1 4. A progressive flex headplate assembly according
2 to Claim 2, wherein each of said top segment, said
3 middle segment, and said bottom segment has a front
4 edge and a back edge, and wherein one of said top
5 segment, said middle segment, and said bottom segment
6 includes two rail segments extending outwardly from
7 said back edge thereof.

1 5. A progressive flex headplate assembly according
2 to Claim 1, wherein said curved segment is constructed
3 of metal, thermoplastic, wood, or a combination
4 thereof.

1 6. A saddle tree for use in the construction of a
2 progressive flex riding saddle for a horse, said
3 saddle tree comprising:
4 the progressive flex headplate of Claim 1, which
5 will be located at a position near the front of the
6 horse when the saddle is installed thereupon;
7 a cantle portion which will be located at a
8 position near the rear of the horse when the saddle is
9 installed thereupon; and
10 a flexible connecting portion connecting the
11 progressive flex headplate assembly to said cantle
12 portion.

1 7. A headplate assembly for use in the construction
2 of a progressive flex saddle tree, said headplate
3 assembly comprising:

4 a plurality of flexible, resilient segments
5 positioned overlapping each other, said flexible
6 segments forming a stack having a top side and a
7 bottom side, said stack also having first and second
8 legs and a central portion therebetween; and

9 a rigid, curved segment aligned with and secured
10 to one of said top side and said bottom side of said
11 stack at said central portion thereof;

12 wherein said first leg will be positioned on one side
13 of a horse's withers and said second leg will be
14 positioned on the other side of the horse's withers
15 when the headplate assembly is installed thereupon,
16 and wherein each of said legs exhibit both progressive
17 flexibility and resilience in response to flexure of
18 said legs, thereby permitting said legs to accommodate
19 horses having different sized withers.

1 8. A headplate assembly according to Claim 7,
2 wherein said plurality of flexible, resilient segments
3 includes from about two to about five flexible,
4 resilient segments.

1 9. A headplate assembly according to Claim 7,
2 wherein each of said plurality of flexible, resilient
3 segments is constructed from nylon, vinyl,
4 polyethylene, polystyrene, polypropylene, polyvinyl
5 chloride, or a combination thereof.

1 10. A headplate assembly according to Claim 7,
2 wherein each of said plurality of flexible, resilient

3 segments is constructed from of a metal or an alloy
4 material.

1 11. A headplate assembly according to Claim 7,
2 wherein each of said flexible, resilient segments
3 includes a front edge and a back edge and wherein each
4 of said flexible, resilient segments has a small,
5 curved indentation formed in said front edge thereof.

1 12. A headplate assembly according to Claim 11,
2 wherein one of said flexible, resilient segments
3 includes two connecting rails extending outwardly from
4 said back edge thereof.

1 13. A headplate assembly according to Claim 7,
2 wherein said rigid, curved segment is secured to said
3 stack using a securing mechanism.

1 14. A headplate assembly according to Claim 13,
2 wherein said securing mechanism comprises a plurality
3 of rivets and washers.

1 15. A headplate assembly according to Claim 13,
2 wherein said securing mechanism is selected from the
3 group consisting of tacks, nails, screws, bolts, pins,
4 and a combination thereof.

1 16. A progressive flex saddle tree comprising:
2 the headplate assembly of Claim 7;
3 a cantle portion located at a position which is
4 spaced away from said headplate assembly; and
5 a flexible connecting portion connecting said
6 progressive flex headplate to said cantle portion.

1 17. A headplate assembly providing a progressive flex
2 to a saddle tree, said headplate assembly comprising:
3 a top segment, a middle segment, and a bottom
4 segment each constructed of a resilient, flexible
5 material, each of said top segment, said middle
6 segment, and said bottom segment having a length
7 dimension and a midpoint portion located at
8 substantially the midpoint of said length dimension,
9 said length dimension of said bottom segment being
10 longer than said length dimension of said middle
11 segment and said length dimension of said middle
12 segment being longer than said length dimension of
13 said top segment;
14 wherein said top segment, said middle segment, and
15 said bottom segment are consecutively arranged
16 overlapping each other from said top segment to said
17 bottom segment with said midpoint portions of each of
18 said top segment, said middle segment, and said bottom
19 segment being aligned; and
20 a rigid, curved segment overlaying and secured to
21 one of said top segment or said bottom segment at said
22 midpoint portion thereof to thereby form a
23 substantially V-shaped assembly;
24 wherein said substantially V-shaped assembly has a
25 fixed apex portion, a first leg intended to lie on one
26 side of a horse's withers, and a second leg intended
27 to lie on the other side of a horse's withers, each of
28 said legs being progressively flexible and exhibiting
29 progressive resistance in response to flexure of each
30 of said legs.

1 18. A headplate assembly according to Claim 17,
2 wherein said segments are each constructed from nylon,

3 vinyl, polyethylene, polystyrene, polypropylene,
4 polyvinyl chloride, or a combination thereof.

1 19. A headplate assembly according to Claim 17,
2 wherein each of said top segment, said middle segment
3 and said bottom segment has a front edge and a back
4 edge, and wherein one of said top segment, said middle
5 segment and said bottom segment further comprises at
6 least one connecting rail extending from said back
7 edge thereof.

1 20. A headplate assembly according to Claim 17,
2 wherein said rigid, curved segment is constructed of a
3 rigid plastic, wood, or metal material.

1 21. A headplate assembly according to Claim 17
2 further comprising:
3 a securing mechanism for securing said rigid,
4 curved segment to said top segment, said middle
5 segment, and said bottom segment to form said
6 substantially V-shaped assembly.

1 22. A headplate assembly according to Claim 21,
2 wherein said securing mechanism comprises a plurality
3 of rivets and washers.

1 23. A headplate assembly according to Claim 21,
2 wherein said securing mechanism is selected from the
3 group consisting of tacks, nails, screws, bolts, pins,
4 and a combination thereof.

1 24. A progressive flex saddle tree for use in a
2 riding saddle for a horse, said progressive flex
3 saddle tree comprising:

4 the headplate assembly of Claim 17, which will be
5 located at a position near a front portion of the
6 horse;
7 a cantle portion which will be located at a
8 position near the rear of the horse; and
9 a flexible connecting portion connecting said
10 progressive flex headplate and said cantle portion.

1 25. A progressive flex saddle used to accommodate
2 horses of differing sizes, said progressive flex
3 saddle comprising:

4 the progressive flex saddle tree of Claim 24.

1 26. A progressive flex saddle tree for use in a
2 riding saddle for a horse, said progressive flex
3 saddle tree comprising:

4 a progressive flex headplate assembly including:

5 a plurality of flexible, resilient segments
6 positioned overlapping each other, said flexible
7 segments forming a stack having a top side, a
8 bottom side, first and second legs and a midpoint
9 portion located between said first and second
10 legs; and

11 a rigid, curved segment aligned with and
12 secured to one of said top side and said bottom
13 side of said stack at said midpoint portion
14 thereof;

15 a cantle portion having an inverted U-shape; and

16 a flexible connecting portion joining said
17 progressive flex headplate assembly and said cantle
18 portion;

19 wherein said first leg will be positioned on one side
20 of a horse's withers and said second leg will be
21 positioned on the other side of the horse's withers

22 when the riding saddle including the saddle tree is
23 installed thereupon, wherein each of said first and
24 second legs exhibit both progressive flexibility and
25 progressive resilience in response to flexure thereof,
26 permitting said saddle tree to accommodate horses
27 having different sized withers.

1 27. A progressive flex saddle tree according to Claim
2 26, wherein said plurality of flexible, resilient
3 segments are constructed from nylon, vinyl,
4 polyethylene, polystyrene, polypropylene, polyvinyl
5 chloride, or a combination thereof.

1 28. A progressive flex saddle tree according to Claim
2 26, wherein said headplate comprises from two to five
3 flexible, resilient segments.

1 29. A progressive flex saddle tree according to Claim
2 26, wherein said rigid, curved segment is constructed
3 of a metal, a wood, or a thermoplastic material.

1 30. A progressive flex saddle tree according to Claim
2 26, further comprising:
3 at least one connecting rail formed integrally with
4 one of said flexible, resilient segments and extending
5 outwardly from said one of said flexible, resilient
6 segments and engaging said cantle portion.

1 33. A progressive flex riding saddle comprising:
2 the progressive flex saddle tree of Claim 26,
3 said progressive flex saddle tree having a top portion
4 and a bottom portion;
5 a seat cover for covering said top portion of
6 said saddle tree; and

7 a lower saddle assembly for supporting said
8 saddle tree, said lower portion comprising first and
9 second elongated members that will lie on either side
10 of a horse's spine, and at least two saddle panels
11 affixed to said elongated members;
12 wherein said progressive flex saddle tree is secured
13 at said bottom portion to said lower saddle assembly.

1 34. A saddle tree for use in a riding saddle capable
2 of fitting more than one size horse, said saddle tree
3 comprising:

4 a top segment, a middle segment, and a bottom
5 segment each constructed of a resilient, flexible
6 material, each of said top segment, said middle
7 segment, and said bottom segment having a length
8 dimension and a midpoint portion located at
9 substantially the midpoint of said length dimension,
10 said length dimension of said bottom segment being
11 longer than said length dimension of said middle
12 segment and said length dimension of said middle
13 segment being longer than said length dimension of
14 said top segment;

15 wherein said top, middle and bottom segments are
16 consecutively arranged overlapping each other from
17 said top segment to said bottom segment with each of
18 said midpoint portions being aligned; and

19 a rigid, curved segment overlaying and affixed to
20 one of said top segment and said bottom segment at
21 said midpoint portion thereof;

22 wherein said segments and said rigid curved segment
23 form a substantially V-shaped headplate assembly
24 having a fixed apex portion and a first leg intended
25 to lie on one side of a horse's withers, and a second
26 leg intended to lie on another side of the horse's

27 withers, each of said first and second legs being
28 progressively flexible and also exhibiting resilience
29 in response to flexure of said first and second legs;
30 a cantle portion having an inverted U-shape, said
31 cantle portion having a top side projecting upwardly
32 to form a seat back for a saddle, said cantle having a
33 substantially flat bottom side; and
34 a connecting portion joining said substantially
35 V-shaped headplate assembly and said cantle portion.

1 35. A progressive flex saddle tree according to Claim
2 34, wherein said top segment, said middle segment, and
3 said bottom segment are each constructed from nylon,
4 vinyl, polyethylene, polystyrene, polypropylene,
5 polyvinyl chloride, or a combination thereof.

1 36. A progressive flex saddle tree according to Claim
2 34, wherein said rigid curved segment is constructed
3 of a rigid material selected from metal, plastic,
4 wood, or combinations thereof.

1 37. A progressive flex saddle tree according to Claim
2 34, wherein said connecting portion is substantially
3 flat and is constructed of a flexible material
4 selected from leather, nylon, woven fabric, or
5 nonwoven fabric.

1 38. A saddle tree according to Claim 34, further
2 comprising:

3 at least one connecting rail extending outwardly
4 from one of said top segment, said middle segment, and
5 said bottom segment at a position adjacent said
6 midpoint portion thereof;

7 wherein said connecting rail joins said headplate
8 assembly to said cantle portion.

1 39. A riding saddle capable of fitting more than one
2 horse, said riding saddle comprising a progressive
3 flex saddle tree, said saddle tree comprising:

4 a headplate assembly which will be located at the
5 front of the horse when the riding saddle is installed
6 thereupon, said headplate assembly including an
7 elongated spring element having a first end portion, a
8 second end portion, and a center portion located
9 therebetween, said elongated spring element having a
10 larger thickness dimension at said center portion than
11 at said first and second end portions, and a curved
12 segment constructed of a rigid material, said curved
13 segment secured to said center portion of said
14 elongated spring element;

15 wherein said first and said second end portions of
16 said elongated spring element exhibit both progressive
17 flexibility and progressive resilience in response to
18 flexure of said first and second end portions, thereby
19 permitting the headplate assembly to flex to fit more
20 than one size horse;

21 a cantle portion having an inverted U-shape
22 located at the rear of the horse when the saddle is
23 installed thereupon; and

24 a flexible connecting portion joining said
25 headplate assembly to said cantle portion.

1 40. A method for constructing a progressive flex
2 headplate assembly, said method comprising:

3 providing a plurality of flexible, resilient
4 segments, each of said segments having a differing
5 length dimension and a midpoint portion;

6 arranging said segments to overlap each other in
7 consecutive order from said segment having the
8 shortest length dimension to said segment having the
9 longest length wherein each of said segments are
10 aligned at their respective midpoint portions thereof;
11 providing a rigid, curved segment; and
12 securing said rigid curved segment to said
13 plurality of flexible, resilient segments to thereby
14 form a spring element having progressively flexible
15 opposing legs and a fixed apex portion.

1 41. A method for constructing a progressive flex
2 headplate assembly, said method comprising:
3 providing a plurality of segments each
4 constructed of a resilient, flexible material, each of
5 said segments having differing length dimensions and a
6 midpoint portion;
7 arranging said segments in a sequence to overly
8 each other in order from the one of said segments
9 having the shortest length dimension to the one of
10 said segment having said longest length with each of
11 said midpoint portion aligned;
12 providing a rigid, curved segment overlaying
13 either the first or the last segment in said sequence
14 at said midpoint portion thereof; and
15 securing said rigid, curved segment to said
16 segments to form an inverted V-shaped assembly;
17 wherein said inverted V-shaped assembly has a fixed
18 apex portion, a first leg intended to lie on one side
19 of a horse's withers, and a second leg intended to lie
20 on the other side of a horse's withers, each of said
21 legs being progressively flexible to accommodate the
22 size of the horse's withers with said inverted
23 V-shaped assembly also providing said legs with

24 progressive resistance in response to flexure of said
25 legs.